What is Claimed Is:

1. A method of illuminating a subject, comprising:

generating a variable amount of light of a first wavelength and a variable amount of light of a second wavelength, wherein the second wavelength is different from the first wavelength;

optically combining the light of the first wavelength with the light of the second wavelength;

illuminating the subject with the combined light;

adjusting the amount of the light of the first wavelength or the amount of the light of the second wavelength, to achieve a color characteristic of a desired illumination of the subject with the combined light;

recording the amount of the light of the first wavelength and the amount of the light of the second wavelength contained in the combined light used to achieve the desired illumination of the subject;

setting a lighting system to generate the recorded amount of the light of the first wavelength and to generate the recorded amount of the light of the second wavelength;

operating the lighting system to generate the set recorded amounts of light of the first and second wavelengths;

optically combining the light of the first and second wavelengths generated by the lighting system to produce a combined light output corresponding to the desired illumination; and

irradiating the subject with the combined light output from the lighting system, to achieve the desired illumination of the subject using the lighting system.

2. The method of claim 1, wherein the subject illuminated comprises one or more examples of a particular product.

3. The method of claim 1, wherein the subject illuminated is a particular person.

4. The method of claim 1, wherein the step of optically combining the light of the first and second wavelengths generated by the lighting system, comprises:

diffusely reflecting the light of the first and second wavelengths generated by the lighting system within a cavity; and

emitting the light of the first and second wavelengths through an aperture of the cavity as the combined light output.

5. The method of claim 4, wherein the setting step comprises:

setting an intensity of illumination of a source of the light of the first wavelength for the lighting system to the recorded amount of the light of the first wavelength; and

setting an intensity of illumination of a source of the light of the second wavelength for the lighting system to the recorded amount of the light of the second wavelength.

6. The method of claim 5, wherein the sources comprise light emitting diodes of different colors.

7. The method of claim 1, wherein the desired illumination of the subject using the lighting system provides substantially white light of a selected color temperature having a difference in chromaticity from the selected temperature on the black body curve.

8. The method of claim 1, wherein the recording of the amount of the light of the first wavelength and the amount of the light of the second wavelength contained in the combined light used to achieve the desired illumination of the subject comprises recording chromaticity coordinates corresponding to the desired illumination.

9. The method of claim 1, wherein the recording of the amount of the light of the first wavelength and the amount of the light of the second wavelength contained in the combined light used to achieve the desired illumination of the subject comprises recording proportional amounts for three primary colors, for producing a chromaticity corresponding to the desired illumination.

10. The method of claim 1, further comprising:

sensing color of the combined light of the lighting system; and

adjusting the operation of the lighting system to generate the set recorded amounts of light, in response to the sensed color.

11. The method of claim 1, wherein the step of operating the lighting system to generate the set recorded amounts of light of the first and second wavelengths includes activating at least one initially inactive source of light of one of the wavelengths.

12. A method of illuminating a subject with light of a desired color characteristic, comprising:

setting a first amount for light of a first wavelength;

generating light of the first wavelength from a first source, in a first intensity corresponding to the first set amount;

setting a second amount for light of a second wavelength;

generating light of the second wavelength from a second source, in a second intensity corresponding to the second set amount; wherein the second wavelength is different from the first wavelength, and the first and second set amounts correspond to the desired color characteristic for the illumination of the subject;

diffusely reflecting the generated light of the first and second wavelengths from the first and second sources within a cavity, to produce combined light containing amounts of light of the first and second wavelengths in proportion to the first and second set amounts; and

emitting at least a portion of the combined light through an aperture of the cavity to illuminate the subject with light of the desired color characteristic.

13. The method of claim 12, wherein the subject illuminated comprises a particular product.

14. The method of claim 12, wherein the subject illuminated is a particular person.

15. The method of claim 12, further comprising adjusting an opening of an iris optically coupled to the aperture, to control overall intensity of the combined light from the cavity illuminating the subject.

16. The method of claim 12, wherein the first and second sources comprise first and second light emitting diodes, of different colors.

17. The method of claim 12, further comprising determining the first and second amounts so as to provide the color characteristic of the desired illumination of the subject with the combined light, before performing the setting and generating steps.

18. The method of claim 17, wherein the combined light provides substantially white light of a selected color temperature with a difference in chromaticity from the selected temperature on the black body curve.

19. The method of claim 18, wherein the determining step comprises recording chromaticitiy coordinates representing the color characteristic of the desired illumination, for use in setting the first amount of light of the first wavelength and the second amount of light of the second wavelength.

20. The method of claim 18, wherein the determining step comprises recording a first color intensity for the first wavelength and a second color intensity for the second wavelength, for producing the color characteristic of the desired illumination.

21. The method of claim 12, further comprising:

sensing color of the combined light of the lighting system; and

controlling intensity of light of the first wavelength generated from the first source or intensity of light of the second wavelength generated from the second source, to generate the set amount of light of at least one of the wavelengths, in response to the sensed color.

22. The method of claim 12, further comprising wherein at least one of the generating steps includes activating at least one initially inactive source of light of one of the wavelengths.

23. A method of illuminating a subject with light of a desired color characteristic, comprising:

determining settings relating to amounts of three colors of light for providing the desired color characteristic for illumination of the subject;

recording data corresponding to the determined settings;

transferring the recorded data to a lighting system for use in illuminating the subject;

responsive to the transferred data, generating light of the three colors in amounts corresponding to the determined settings;

diffusely reflecting the generated light of the three colors within a cavity, to produce combined light containing the three colors of light in amounts proportional to the determined settings; and

emitting at least a portion of the combined light through an aperture of the cavity to illuminate the subject with light of the desired color characteristic, for human observation of the illuminated subject.

24. The method of claim 23, wherein the combined light is substantially white.

25. The method of claim 23, wherein the three colors of light comprise three primary colors of light.

26. The method of claim 23, wherein the three colors of light comprise white light and two or more primary colors of light.